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Help | Logout | Interrupt

Main Menu | Search Form | Posting Counts | Show S Numbers | Edit S Numbers | Preferences | Cases

Search Results -

Terms	Documents
(((707/3)!.CCLS.))	2554

Database: US Patents Full-Text Database; US Pre-Grant Publication Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Search: Refine Search

Recall Text | Clear

Search History

DATE: Tuesday, March 11, 2003 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L64	(((707/3)!.CCLS.))	2554	L64
L63	(((707/100)!.CCLS.))	1449	L63
L62	(((707/101)!.CCLS.))	1043	L62
L61	(((707/1)!.CCLS.))	2241	L61
L60	(((717/$)!.CCLS.))	4443	L60
L59	((717/107)!.CCLS.)	110	L59
L58	((704/8)!.CCLS.)	261	L58
L57	6167393.pn.	2	L57
L56	6151604.pn.	2	L56
L55	5167393.pn.	2	L55
L54	5151604.pn.	2	L54
L53	5966686.pn.	2	L53
L52	5963894.pn.	2	L52
L51	5826258.pn.	2	L51
L50	5526522.pn.	2	L50

L49	5515534.pn.	2	L49
L48	5454106.pn.	2	L48
L47	5442780.pn.	2	L47
L46	5060155.pn.	2	L46
L45	4974191.pn.	2	L45
L44	L43 and attributes	9	L44
L43	L42 and generate$ same index	12	L43
L42	l27 and (free near format near data or unformat$ same data)	64	L42
L41	l33 and (free near format near data or unformat$ same data)	31	L41
L40	l36 and (free near format near data or unformat$ same data)	0	L40
L39	l35 and (free near format near data or unformat$ same data)	2	L39
L38	(((704/9)!.CCLS.))	633	L38
L37	(((704/$)!.CCLS.))	14243	L37
L36	(((715/541)!.CCLS.))	83	L36
L35	(((715/531)!.CCLS.))	371	L35
L34	(((715/513)!.CCLS.))	874	L34
L33	(((715/$)!.CCLS.))	5642	L33
L32	(((707/102)!.CCLS.))	1538	L32
L31	(((707/4)!.CCLS.))	1211	L31
L30	(((707/14)!.CCLS.))	0	L30
L29	(((707/1)!.CCLS.))	2241	L29
L28	(((707/101)!.CCLS.))	1043	L28
L27	(((707/$)!.CCLS.))	14662	L27
L26	((707/9)!.CCLS.)	667	L26
L25	L24 and syntactic same data	4	L25
L24	L22 and semantic same data	19	L24
L23	L22 and semantic same inform$	11	L23
L22	L21 and query	50	L22
L21	L20 and pointer	86	L21
L20	L19 and text same objects	95	L20
L19	L18 and relationships	348	L19
L18	L17 and attribute$	455	L18
L17	L16 and (index or indices)	1061	L17
L16	free same format same data or unformat$ same data	3442	L16
L15	5515534.uref.	7	L15
L14	L13 and (hierarchic$ or hierarch$)	14	L14
L13	L12 and attribute	17	L13
L12	L11 and value	20	L12
L11	L10 and text with object	27	L11
L10	free near format near data or unformat$ near data	251	L10
L9	5826258.uref.	20	L9
L8	L7 and arbitrar$ same struct$ same data	4	L8

L7	l6 and (form$ or generate$ or make$ same index)	21	L7
L6	L5 and semi and structured same data	21	L6
L5	L4 and (index or indices)	151	L5
L4	(directory near2 service and semantic)	314	L4

DB=USPT; PLUR=YES; OP=OR

L3	5227971.pn.	1	L3

DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR

L2	free-format near2 data near records	3	L2
L1	"hetherington, greg".in.	3	L1

END OF SEARCH HISTORY

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Generate Collection | Print

L9: Entry 7 of 20 File: USPT Oct 16, 2001

US-PAT-NO: 6304870
DOCUMENT-IDENTIFIER: US 6304870 B1

TITLE: Method and apparatus of automatically generating a procedure for extracting information from textual information sources

DATE-ISSUED: October 16, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kushmerick; Nicholas	Seattle	WA		
Weld; Daniel S.	Seattle	WA		
Doorenbos; Robert B.	Seattle	WA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
The Board of Regents of the University of Washington, Office of Technology Transfer	Seattle	WA			02

APPL-NO: 08/ 982857 [PALM]
DATE FILED: December 2, 1997

INT-CL: [07] G06 F 17/30

US-CL-ISSUED: 707/4; 707/104, 707/10, 707/6, 707/3
US-CL-CURRENT: 707/4; 707/10, 707/104.1, 707/3, 707/6

FIELD-OF-SEARCH: 707/4, 707/10, 707/104, 707/3, 707/6

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	5418888	May 1995	Alden	706/48
☐	5634051	May 1997	Thomson	707/5
☐	5737592	April 1998	Nguyen et al.	707/4
☐	5761656	June 1998	Ben-Sharchar	707/4
☐	5768578	June 1998	Kirk et al.	707/100
☐	5826258	October 1998	Gupta et al.	707/4
☐	5857187	January 1999	Uenoyama et al.	707/8
☐	5862325	January 1999	Reed et al.	395/200.31
☐	5884309	March 1999	Vanechanos, Jr.	707/10
☐	5893109	April 1999	DeRose et al.	707/104
☐	5920696	July 1999	Lyn	395/200.48

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Pattie Maes et al., Learning interface agents, Proceeding of AAAI-93, 1993.
H. Lieberman, Letizia: An agent that assists web browsing, Proc. 15.sup.th Int. Joint Conf. on. A. I.., 924-929, 1995.
Robert Armstrong et al., Webwatcher: A learning apprentice for the world wide web, Working Notes of the AAAI Spring Symposium: Information Gathering from Heterogeneous, Distributed Enviroments, 6-12, 1995.
Lisa Dent et al., A personal learning apprentice, Proc. 10.sup.th Nat. Conf. on A.I., 96-103, 1992.
Pattie Maes, Agents that reduce work and information overload, Comm. of the ACM, 37(7): 31-40, 1994.
Tom Mitchell et al., Experience with a learning personal assistant, Comm of the ACM., 37(7): 81-91, 1994.
O. Etzioni et al., A softbot-based interface to the Internet, Comm. of the ACM, 37(7): 72-75, 1994.

ART-UNIT: 212

PRIMARY-EXAMINER: Alam; Hosain T.

ASSISTANT-EXAMINER: Corrielus; Jean M.

ABSTRACT:

A procedure is disclosed for automatically constructing wrappers for performing information-extraction from sites such as Internet resources that display relevant information, interspersed with extraneous text fragments, such as HTML formatting commands or advertisements. The procedure has three basic steps. First, a set of example pages are collected with a subroutine named GatherExamples. Gather Examples is provided with information describing how to pose example queries to the site whose wrapper is to be learned. Second, these example pages are labeled by a subroutine named LabelExamples--i.e., the information to be extracted from each example is identified for use in the third step. The LabelExamples subroutine uses a general framework for labeling pages using site-specific heuristics called recognizers, as well as allowing users to correct and modify the recognized instances. Finally, the labeled example pages are passed to a BuildWrapper subroutine, which constructs a wrapper.

24 Claims, 2 Drawing figures

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Generate Collection Print

L9: Entry 13 of 20 File: USPT Jul 4, 2000

US-PAT-NO: 6085190
DOCUMENT-IDENTIFIER: US 6085190 A

TITLE: Apparatus and method for retrieval of information from various structured information

DATE-ISSUED: July 4, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sakata; Tsuyoshi	Yokohama			JP

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Digital Vision Laboratories Corporation	Tokyo			JP	03

APPL-NO: 08/ 970625 [PALM]
DATE FILED: November 14, 1997

INT-CL: [07] G06 F 17/30

US-CL-ISSUED: 707/6; 707/3, 707/5, 707/10, 395/200.31, 395/200.43
US-CL-CURRENT: 707/6; 707/10, 707/3, 707/5, 709/201, 709/213

FIELD-OF-SEARCH: 707/3, 707/10, 707/5, 707/6, 707/100, 707/513, 395/200.31, 395/200.79, 705/26

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4803642	February 1989	Muranaga	364/244
☐	5606690	February 1997	Hunter et al.	707/5
☐	5752242	May 1998	Havens	707/3
☐	5778360	July 1998	Sugita et al.	707/4
☐	5787437	July 1998	Potterveld et al.	707/103
☐	5802509	September 1998	Maeda et al.	706/59
☐	5826242	October 1998	Montulli	705/27
☐	5826258	October 1998	Gupta et al.	707/4
☐	5835087	November 1998	Herz et al.	345/327
☐	5845278	December 1998	Kirsch et al.	707/3
☐	5862325	January 1999	Reed et al.	395/200.31

ART-UNIT: 277

PRIMARY-EXAMINER: Home Jean R.

ABSTRACT:

An information retrieval apparatus having a meta-data specifying section for specifying at least one attribute of information described in various forms of description, and a pattern learning section for creating rules for extracting information including the specified attribute based on the specified attribute.

13 Claims, 11 Drawing figures

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L9: Entry 18 of 20 File: USPT Aug 10, 1999

US-PAT-NO: 5937407
DOCUMENT-IDENTIFIER: US 5937407 A

TITLE: Information retrieval apparatus using a hierarchical structure of schema

DATE-ISSUED: August 10, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sakata; Tsuyoshi	Yokohama			JP

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Digital Vision Laboratories Corporation				JP	03

APPL-NO: 08/ 989206 [PALM]
DATE FILED: December 11, 1997

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	8-332279	December 12, 1996

INT-CL: [06] G06 F 17/30

US-CL-ISSUED: 707/100; 707/3, 707/4, 707/101, 707/102
US-CL-CURRENT: 707/100; 707/101, 707/102, 707/3, 707/4

FIELD-OF-SEARCH: 707/1-3, 707/100-103, 706/45, 706/46, 706/50, 706/55, 706/902, 706/934

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	5339256	August 1994	Levy et al.	706/911
☐	5768578	June 1998	Kirk et al.	707/100
☐	5778373	July 1998	Levy et al.	707/100
☐	5826258	October 1998	Gupta et al.	707/4

OTHER PUBLICATIONS

Microsoft Press Computer Dictionary, Second Edition, 1994, pp. 156-157, 344-345, Dec. 1994.

ART-UNIT: 271

PRIMARY-EXAMINER: Black; Thomas G.

ASSISTANT-EXAMINER: Alam; Hosain T.

ABSTRACT:

An information retrieving apparatus comprises a retrieve instruction executing means for executing a retrieve instruction based on a retrieval formula described based on an arbitrary schema, a schema conversion means for converting the retrieval formula into another retrieval formula according to another schema based on pregiven rules, and a schema management means for managing the rules for converting the retrieval formula into the other retrieval formula, wherein the retrieve instruction executing means retrieves desired information based on the other retrieval formula. In this case, preferred embodiments are as follows.

8 Claims, 6 Drawing figures

L22: Entry 41 of 50 File: USPT May 27, 1997

US-PAT-NO: 5634124
DOCUMENT-IDENTIFIER: US 5634124 A

TITLE: Data integration by object management

DATE-ISSUED: May 27, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Khoyi; Dana	Dracut	MA		
San Soucie; Marc	Tyngsboro	MA		
Surprenant; Carolyn E.	Dracut	MA		
Stern; Laura O.	Woburn	MA		
Pham; Ly-Huong T.	Chelmsford	MA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Wang Laboratories, Inc.	Billerica	MA			02

APPL-NO: 08/ 450457 [PALM]
DATE FILED: May 25, 1995

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This Patent Application is a Continuation Patent Application of co-pending U.S. patent application Ser. No. 066,688 for INTEGRATION OF DATA BETWEEN TYPED DATA STRUCTURES BY MUTUAL, DIRECT INVOCATION BETWEEN OBJECT MANAGERS CORRESPONDING TO DATA types by Dana Khoyi et al., filed May 20, 1993 now U.S. Pat. No. 5,421,012 and since allowed, which was a Continuation Patent Application of co-pending U.S. patent application Ser. No. 07/938,928 for INTEGRATION OF DATA BETWEEN TYPED DATA STRUCTURES BY MUTUAL, DIRECT INVOCATION BETWEEN DATA MANAGERS CORRESPONDING TO DATA TYPES by Dana Khoyi et al., filed Aug. 31, 1992 now U.S. Pat No. 5,226,161 and since allowed, which was a Continuation Patent Application of co-pending U.S. patent application Ser. No. 07/681,435 for DATA INTEGRATION BY OBJECT MANAGEMENT by Dana Khoyi et al., filed Apr. 3, 1991 now U.S. Pat. No. 5,206,951 and since allowed, which was a Continuation Patent Application of co-pending U.S. patent application Ser. No. 07/088,622 for DATA INTEGRATION BY OBJECT MANAGEMENT by Dana Khoyi et al., filed Aug. 21, 1987 and since abandoned. The present patent application is related to U.S. patent application Ser. No. 07/937,911 for DATA INTEGRATION BY OBJECT MANAGEMENT by Dana Khoyi et al., filed Aug. 28, 1992 and U.S. patent application Ser. No. 07/936,980 for DATA INTEGRATION BY OBJECT MANAGEMENT by Dana Khoyi et al., filed Aug. 28, 1993, both of which are Divisional Applications of U.S. patent application Ser. No. 07/088,622 for DATA INTEGRATION BY OBJECT MANAGEMENT by Dana Khoyi et al., filed Aug. 21, 1987 and since abandoned. The present patent application is also related to U.S. patent application Ser. No. 07/915,775 for CUSTOMIZATION BY AUTOMATIC RESOURCE SUBSTITUTION by Marc San Soucie et al., filed Jul. 16, 1992, which was a Continuation Application of U.S. patent application Ser. No. 07/088,176 for CUSTOMIZATION BY AUTOMATIC RESOURCE SUBSTITUTION by Marc San Soutie et al., filed Aug. 28, 1987 and since abandoned. All of the above related patent applications are assigned to the assignee of the present patent application.

INT-CL: [06] G06 F 9/40, G06 F 17/30

US-CL-ISSUED: 395/614; 395/615, 395/683
US-CL-CURRENT: 707/103R; 709/315

FIELD-OF-SEARCH: 395/700, 395/650, 395/600, 364/DIG.1, 364/DIG.2, 364/283.4, 364/979.4

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4387427	June 1983	Cox et al.	364/200
☐	4558413	December 1985	Schmidt et al.	364/300
☐	4587628	May 1986	Archer et al.	364/900
☐	4815029	March 1989	Barker et al.	364/900
☐	5206951	April 1993	Khoyi et al.	395/650
☐	5226161	July 1993	Khoyi et al.	395/650
☐	5421012	May 1995	Khoyi et al.	395/650

OTHER PUBLICATIONS

Lipkie, et al., "Stargraphics: An Object--Oriented Implementation," Computergraphics, v. 16, No. 3, Jul. 1982, pp. 29-38.
Schmucker, "MACAPP: An Application Framework," BYTE, Aug. 1986, pp. 189-193.
Kimura, "A Structure Editor for Abstract Document Objects," IEEE Transactions of Software Engineering, vol. SE-12, No. 3, Mar. 1986, pp. 417-435.
Ursino, "Open Architecture Design Unites Diverse Systems," Electronics, Aug. 11, 1983, pp. 116-117.
Garrett, "Intermedia: Issues, Strategies, and Tactics in the Design of a Hypermedia Document System", Institute for Research in Information and Scholarship (IRIS), Brown University.

ART-UNIT: 236

PRIMARY-EXAMINER: Kriess; Kevin A.

ASSISTANT-EXAMINER: Richey; Michael T.

ABSTRACT:

An object based data processing system including an extensible set of object types and a corresponding set of "object managers" wherein each object manager is a program for operating with the data stored in a corresponding type of object. The object managers in general support at least a standard set of operations. Any program can effect performance of these standard operations on objects of any type by making an "invocation" request. In response to an invocation request, object management services (which are available to all object managers) identifies and invokes an object manager that is suitable for performing the requested operation on the specified type of data. A mechanism is provided for linking data from one object into another object. A object catalog includes both information about objects and about links between objects. Data interchange services are provided for communicating data between objects of different types, using a set of standard data interchange formats. A matchmaker facility permits two processes that are to cooperate in a data interchange operation identify each other and to identify data formats they have in common. A facility is provided for managing shared data "resources", Customized versions of resources can be created and co-exist with standard resources. A resource retrieval function determines whether a customized or a standard resource is to be returned in response to each request for a resource.

3 Claims, 13 Drawing figures

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L42: Entry 53 of 64 File: USPT May 7, 1996

US-PAT-NO: 5515534
DOCUMENT-IDENTIFIER: US 5515534 A

TITLE: Method of translating free-format data records into a normalized format based on weighted attribute variants

DATE-ISSUED: May 7, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chuah; Mooi C.	Middletown	NJ		
Wong; Wing S.	Holmdel	NJ		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
AT&T Corp.	Murray Hill	NJ			02

APPL-NO: 07/ 953403 [PALM]
DATE FILED: September 29, 1992

INT-CL: [06] G06 F 17/30

US-CL-ISSUED: 395/600; 364/DIG.1, 364/282.1
US-CL-CURRENT: 707/101

FIELD-OF-SEARCH: 395/600, 364/419

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4974191	November 1990	Amirghodsi et al.	395/275
☐	5227971	July 1993	Nakajima et al.	364/419.02
☐	5265065	November 1993	Turtle	395/600
☐	5268839	December 1993	Kaji	364/419.03
☐	5276616	January 1994	Kuga et al.	364/419.08
☐	5333317	July 1994	Dann	395/600
☐	5428777	June 1995	Perliski et al.	395/600
☐	5434974	July 1995	Loucks et al.	395/700

ART-UNIT: 237

PRIMARY-EXAMINER: Amsbury; Wayne

ABSTRACT:

A facility is provided for normalizing the format of stored data records using a dictionary that is generated from a training set of data records having predefined formats.

7 Claims, 9 Drawing figures

WEST

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L1: Entry 2 of 3 File: USPT Aug 7, 2001

US-PAT-NO: 6272495
DOCUMENT-IDENTIFIER: US 6272495 B1

TITLE: Method and apparatus for processing free-format data

DATE-ISSUED: August 7, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hetherington; Greg	Kareela New South Wales 2232			AU

US-CL-CURRENT: 707/101; 707/102, 707/4, 715/531

CLAIMS:

What is claimed is:

1. A method of processing free-format data stored in a computing system, comprising the steps of examining elements of the data to determine attributes of the data, by examining the content of the elements and the contextual relationships of elements to each other, to determine semantic and syntactic information about the data, producing additional data relating to this information, in the form of a text object which includes pointer means enabling access to the elements of the free-format data, and the additional data being accessible by a query processing means to provide at least one of answers to queries relating to the semantic and syntactic information about the data and to access the data to manipulate the data; and arranging the text object to act as a layer, between the free-format data and the query processing means, for at least one of interpretation and manipulation of the data

processing a plurality of free-format data records and producing a text object associated with each free-format data record; and

producing a text object index including attribute type identifiers for elements of each data record and pointers to each data record, whereby the index may be queried by queries relating to semantic and syntactic-information about the data and the data may be accessed via the index.

2. A method in accordance with claim 1, wherein the free-format data is stored as a record in a free-format field of a database.

3. A method in accordance with claim 1, wherein the data remains stored in the computing system as it was originally stored, whereby it may be accessed by other applications.

4. A method in accordance with claim 1, wherein the text object includes an attribute--type identifier which identifies an attribute type of an element of the data.

5. A method in accordance with claim 1, wherein the text object includes a value indicating the character length of an element of the data.

6. A method in accordance with claim 4, wherein the text object includes a value indicating whether an element is low level in a syntactic hierarchy or higher level whereby the value may be used for matching purposes when matching data with other data processed in accordance with the method.

7. A method in accordance with claim 1, the text object including a match weighting value for an element of the data, which can be used to determine the significance of the element when matching with other free format data.

8. A method in accordance with claim 1, wherein the text object comprises a plurality of component nodes arranged according to the semantic structure of the free-format data, the component nodes being arranged in a hierarchy corresponding to the semantic structure of the free-format data and each component node including additional data relating to the corresponding element of the free-format data.

9. A method in accordance with claim 1, comprising the further step of generating matching values for comparing an element of the free-format data with an element of other free-format data processed in accordance with the present method.

10. A method in accordance with claim 9 where the matching value is a phonetic value for phonetically comparing elements of free-format data.

11. A method in accordance with claim 1, wherein the text object includes implied data relating to information implied from the free-format data.

12. A method in accordance with claim 1, wherein a plurality of free-format data records are processed and a text object associated with each free-format data record is produced.

13. A method in accordance with claim 12, wherein the text object is stored in the computer system whereby it is available for queries on the associated free-format data record via the query processing means.

14. A method in accordance with claim 1 wherein each entry in the text object index includes a representative value key, which gives a value representative of a feature of the element associated with the attribute--type identifier.

15. A method in accordance with claim 1, comprising the further step of carrying out a domain construction process to construct a domain object from domain definition data files, the domain object being arranged to carry out the examination process by parsing the free-format data in accordance with grammar rules.

16. A method in accordance with claim 15, wherein the domain definition data files include character definition data, regular expression definition data and grammar data.

17. A method in accordance with claim 1, wherein the free-format data is postal address data.

18. A method in accordance with claim 1 wherein the query processing means can carry out normal database operations on the data via the additional data.

19. A process system for processing free-format data stored in a computing system, the apparatus including means for examining elements of the data to determine attributes of the data, by examining the content of the elements and the contextual relationships of elements to each other, to determine semantic and syntactic information about the data, means for producing additional data relating to this information, in the form of a text object which includes pointer means enabling access to the elements of the free-format data, and a query processing means which is arranged to access the additional data to provide at least one of answers to queries relating to the semantic and syntactic information about the data and access the data to manipulate the data; and arranging the text object to act as a layer, between the free-format data and the query processing means, for at least one of interpretation and manipulation of the data;

arranging the system is arranged to process a plurality of free-format data records and produce a text object associated with each free-format data record; and

arranging the means for producing additional data to produce a text object index including attribute-type identifiers for elements of each data record and pointers to each data record and arranging the query processing means to access the text object index to provide answers to queries relating to the semantic and the syntactic information about the data and to access the data to manipulate the data.

20. A processing system in accordance with claim 19, wherein the free-format data is stored as a record in a free-format field of a database.

21. A processing system in accordance with claim 19, wherein the examining means does not affect the storage of the data.

22. A processing system in accordance with claim 20, wherein the text object includes an attribute--type identifier which identifies an attribute type of an element of the data.

23. A processing system in accordance with claim 20, wherein the text object includes a value indicating the character length of an element of the data.

24. A processing system in accordance with claim 22, wherein the text object includes a value, indicating whether an attribute--type of an element is low level in a syntactic hierarchy or high level whereby the value may be used for matching purposes when matching with other free-format data processed in accordance with this system.

25. A processing system in accordance with claim 20, wherein the text object includes a match weighting value for an element of the data, which can be used to determine the significance of the element when matching with other free-format data.

26. A processing system in accordance with claim 20, wherein the text object comprises a plurality of component nodes arranged according to the semantic structure of the free-format data, the component nodes being arranged in a hierarchy corresponding to the semantic structure of the free-format data, and each component node including additional data relating to the corresponding element of free-format data.

27. A processing system in accordance with any one of claims 19 to 26, the text object means for generating matching values for comparing an element of the free-format data with an element of other free-format data processed by the processing system.

28. A processing system in accordance with claim 27, wherein the matching value is a phonetic value for phonetically comparing elements of free-format data.

29. A processing system in accordance with claim 20, wherein the text object includes implied data relating to information implied from the free-format data.

30. A processing system in accordance with claim 20, wherein the system is arranged to process a plurality of free-format data records and produce a text object associated with each free-format data record.

31. A processing system in accordance with claim 30, wherein the text object index includes representative value keys for entries, which give a value representative of a feature of the elements associated with the attribute-type identifier for the entry for facilitating matching with other free-format data process in accordance with the system.

32. A processing system in accordance with claim 20, further comprising a domain object, the domain object being arranged to carry out the examination process by parsing the free-format data in accordance with grammar rules.

33. A processing system in accordance with claim 32, wherein the domain object is produced by a domain construction process from domain definition data files.

34. A processing system in accordance with claim 33, further comprising a domain constructor for carrying out the domain construction process.

35. A processing system in accordance with claim 33, wherein the domain definition data files include character definition data, regular expression definition data and grammar data.

36. A processing system in accordance with claim 20, wherein the free-format data is postal address data.

37. A processing system in accordance with claim 20, wherein the query processing means is arranged to carry out normal database operations on the data via the additional data.

38. A method of enabling access to free-format data stored in a computer system, including a plurality of free-format data records, comprising the steps of storing additional data relating to semantic and syntactic information about the data of each data record, the additional data being in the form of a text object index which includes attribute--type identifiers for elements of each data record and pointers to each data record, the text object index being accessible by a query processing means to provide at least one of answers to queries relating to the semantic and syntactic information about the data and access the data to manipulate the data; and arranging the text object index to act as a layer, between the free-format data and the query processing means, for at least one of interpretation and manipulation of the data.

39. A processing system for enabling access to free-format data stored in a computing system, including a plurality of free-format data records, the processing system comprising the additional data relating to semantic and syntactic information about the free-format data for each data record, the additional data being in the form of a text object index which includes attribute--type identifiers for elements of each data record and pointers to each data record, and a query processing means arranged to access the additional data to provide at least one of answers to queries relating to the semantic and syntactic information about the data and access the data to manipulate the data; and arranging the text object index to act as a layer, between the free-format data and the query processing means, for at least one of interpretation and manipulation of the data.